Energy Efficiency and Conservation

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Background

Since 2010, Great River Energy and our member-owner cooperatives have worked to achieve the Minnesota energy savings goals and conservation spending requirements applicable to all the state's utilities. During that time, Great River Energy's members have realized more than 1 billion kilowatt-hours in energy savings, and Great River Energy has implemented significant efficiency improvements at its generation and transmission facilities. Great River Energy's members met or exceeded their efficiency goals by engaging their cooperative members to identify cost-effective energy efficiency investments.

Great River Energy's position

Although Great River Energy and our member-owners have been successful in meeting the Minnesota energy conservation goals, we believe any increase to the current Conservation Improvement Program (CIP) goals are unwarranted. Minnesota's Energy Savings Policy Goal states that "…cost-effective energy savings should be procured systematically and aggressively in order to reduce utility costs for businesses and residents." For member-owned electric cooperatives, any CIP goal increase would result in excessive financial hardship and does not reflect current resource needs.

The current CIP policy was enacted at a time when promising efficiency technologies faced significant cost barriers preventing widespread adoption. For instance, a single LED light bulb cost $50-$100 in 2007. Today, LED bulbs cost under $5 and are viewed as standard lighting technology for businesses and homeowners. Great River Energy believes the CIP would be more effective if it incentivized technologies or behaviors that led to greater efficiency and emissions reductions in the future.

Challenges remain

We expect meeting future energy savings goals will be challenging due to a number of issues unique to electric cooperatives. They are:

- *Co-ops predominantly serve residential customers*: More than 80 percent of the population served by Great River Energy's member-owners are rural, residential customers which account for approximately 65 percent of total energy sales on the Great River Energy system. Today, there are fewer residential energy savings opportunities due to enhancements to the Minnesota State Building Codes, federal appliance and lighting standards, technology innovation and limited new home construction.
- *Co-op members are disproportionately below the state average per capita income*: Nearly 80 percent of Minnesota residential cooperative members have income levels below the state average. This limits end-use member investment in energy conservation measures even with the use of cooperative-sponsored incentives.
- *Co-ops serve very few commercial or industrial members*: Energy savings from commercial or industrial members is generally more cost-effective than achieving similar energy savings from residential members.
- *Costs associated with goal increases*: In performing an internal analysis evaluating costs of increasing Great River Energy's retail energy efficiency achievements from the 2017 level of about 1.3 percent, it is important to note that along with increased spending on incentives, utilities must also expand the amount that is spent on administration of the programs that help identify energy efficiency opportunities available to members. Doubling the energy efficiency achievements would increase costs by a factor of three. This does not reflect a good investment on behalf of Great River Energy, our member-owners or their cooperative members.

- *Changing generation resources:* Great River Energy has no projected need for new generation capacity and plans to add only renewable energy resources in the next decade. The use of utility efficiency programs to reduce the need for new fossil resources is no longer a realistic outcome of the program. Changes to the program should continue to focus on reducing costs for members by optimizing the integration of new technologies and incorporating time of use.

Potential changes in the future

Great River Energy and our member-owner cooperatives continue to educate members on both the importance of saving energy and how to participate in cooperative-sponsored programs that help to offset the upfront costs of energy efficiency investments. After complying with the legislation for nearly a decade, Great River Energy and our member-owner cooperatives have reached the point where it is time to review portions of the law that are no longer valid or adversely affect our member-owners. Some of the changes to Minnesota energy policy to consider include:

- *Recognizing the value of electrifying energy efficient technologies that reduce carbon dioxide (CO_2) emissions*: Minnesota's energy policy puts significant emphasis on mitigating CO_2 emissions, including a state goal of realizing an 80 percent reduction of CO_2 emissions compared to 2005 levels by 2050. To date, Minnesota's electric utilities have been the biggest contributor to these emissions reduction goals. Technology developments associated with electric end uses would suggest that further CO_2 emissions reductions can result from the encouragement and promotion of energy efficient electric technologies that promote members switching from fossil fuel-based resources to ones that use electricity, primarily from renewables.
- *Recognize load management efforts and other grid-modernization efforts:* As member and consumer expectation drive utilities to procure larger percentages of renewable energy, utilities need to look for ways to better manage the variability of renewable energy resources and their impacts on the electric grid. Current policy treatments for load management, advanced metering, energy storage and time-of-use rate designs do not reflect the value that such programs can provide to the electric grid. Policies that better recognize the value associated with when energy is consumed will be important to furthering the overall efficiency of the electric grid and the integration of renewable energy.
- *Shift focus from quantity of savings to system-wide efficiency improvements:* Energy efficient market transformation and technology transformation is occurring much more rapidly than when utility energy efficiency programs were originally conceived. Continuing to require utilities to meet efficiency requirements in the face of limited generation needs adds costs and limits the ability to make other system investments without further increasing cooperative members' costs. Utility conservation efforts should shift the focus of these programs to demand- and supply-side technologies that deliver system-wide benefits, not simply working to meet outdated goals.

Great River Energy and our member-owner cooperatives will continue making a good faith effort to meet future energy savings goals by educating consumers about the importance of saving energy and encouraging participation in energy efficiency programs. We will also continue to advocate for changes to Minnesota's energy policy that better reflect the cooperative business model and the unique challenges Minnesota electric cooperatives face to meet the goals that have been established.